

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/012146

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01P5/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01P H03H H03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 148 132 A (CHAPELL ET AL) 15 September 1992 (1992-09-15) column 1, line 52 - column 2, line 21; figure 4 column 4, line 1 - line 22	1
A	US 3 654 570 A (CALVIN J. THOMAS) 4 April 1972 (1972-04-04) column 2, line 32 - line 56; figure 3	1
A	DE 23 50 186 A1 (SIEMENS AG; SIEMENS AG, 1000 BERLIN UND 8000 MUENCHEN) 24 April 1975 (1975-04-24) page 7, line 7 - line 21; figure 4 ----- -/-	1

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

31 January 2005

Date of mailing of the international search report

07/02/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 018, no. 509 (E-1610), 26 September 1994 (1994-09-26) & JP 06 177618 A (MURATA MFG CO LTD), 24 June 1994 (1994-06-24) abstract</p> <p>-----</p>	1

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Information on patent family members

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PCT/EP2004/012146

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5148132	A	15-09-1992	WO 9213370 A1	06-08-1992
US 3654570	A	04-04-1972	NONE	
DE 2350186	A1	24-04-1975	NONE	
JP 06177618	A	24-06-1994	NONE	